

Scoring & Algorithms for Safe Patient Handling & Mobility



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Guidelines: How to obtain a transfer/reposition score

- I. Patient's Level of Assistance:** Circle the value for how the patient's mobility has been for the last 24 hours – consider any recent acute changes such as anesthesia or mental status.
- II. Lower extremity ability to bear weight** – The patient must be able to stand on both legs to be scored zero: If one leg is bandaged/fractured, the patient has unilateral support – circle 1. If your patient is able to stand on both legs but is weak, you may score them 1 for low tolerance in ability to stand. The algorithms are guidelines, and some clinical judgment must still be used.
- III. Upper Extremity Strength and Hand grasp** - If the patient has one strong arm with inability to grasp, and one normal arm, circle 1. The patient must be able to hold on to support structures for balance and support, and have strength in their arm to count as normal ability.
- IV. Does the patient understand direction, cooperate, and follow simple commands?** If the patient is combative sometimes, obtain a new score at each encounter. Always err on the safe side by scoring the higher number if you are unsure of the patient's ability to cooperate.
- V. Height and Weight Score** – If the patient is >200 # or >6 feet tall and has altered mobility add ___1___ (If the patient is over 300 pounds, use the VHA SPHM Algorithms.)
- VI. Check with front line staff** - Does the patient have medical or mental conditions that may be likely to affect transfer/repositioning tasks such as medical instability, fractures, recent major surgery, chest pain dizzy, or stage IV pressure ulcers. There are many possibilities that could affect patient transfer, always ask the primary nurse if the patient has special transfer needs, and assign 1 for the safe patient handling score, regardless of how many different conditions the patient has.

Common Scoring errors: Avoid double counting the same mobility concern!

EXAMPLE # 1: If a patient needs minimum to moderate assist because they are blind, and you scored them “1” in the first section, do not add another “1” in section VI

EXAMPLE # 2: If a patient is a new hip surgery, and you gave them a “1” in ability to stand and bear weight, do not add another “1” because they just had surgery.

Safe Patient Handling Score _____ **Sling Type** _____

Seated _____	Seated with Head Support _____	Seated - Amputee _____
Hygiene _____	Ambulation Sling _____	Limb Support _____
Supine _____	Turning/reposition Sling _____	Full Body Supine _____

Signature and Title: _____ **Date** _____

All scoring should error to the side of safety so if cooperation or mobility changes throughout the day use the highest score.

Remember a patient who ambulates independently with a walker or cane is still independent!

When you get to 4 stop scoring = full body lift/dependent.

Above 4 is not too high, it just means there is no need to continue with obtaining a patient handling score as the patient is dependent and considered a full lift.

Safe Patient and Handling Score: Circle one numerical rating from the functional scores in each of the following 6 sections and add them together to obtain a Safe Patient Handling Score. Place the Safe Patient Handling Score on your unit worksheet, equipment selection charts, and your shift report.

I. Patient's Level of Assistance:

- 0 No Help Needed – The patient is independent, standby for safety only, needs no staff assist
 1 The patient needs minimal to moderate help, light touch, verbal cues – Staff is required to lift <35#
 2 Dependent—Patient requires staff to lift > 35# or the patient has unpredictable strength/high risk for fall during the reposition. In this case assistive devices need to be used for safe moves.

II. Lower extremity ability to bear weight III. Upper Extremity Strength and Hand grasp

When the patient is able to use the extremity bilateral but the arms/legs are weak count as 1

- | | |
|---|--|
| <u> 0 </u> Bilateral Weight Bearing | <u> 0 </u> Bilateral strength and hand grasp present |
| <u> 1 </u> Unilateral weight bearing | <u> 1 </u> Unilateral Upper extremity Strength/grasp |
| <u> 2 </u> None (Inconsistent = none) | <u> 2 </u> No upper body strength/ability to grasp |

IV. Does the patient understand direction, cooperate, and follow simple commands?

- 0 Yes
 2 No (Highly Unpredictable, behavior varies. Obtain new score prior to every move)
 3 Combative during hands on care/transfers

V. Height and Weight Score – If over 200 pounds or 6 feet tall **and currently** has mobility issues – add 1 (If the patient has a BMI over 50 or weighs over 300 pounds consider using the VHA SPHM Algorithms)

VI. Check with front line staff - Does the patient have medical or mental conditions that may be likely to affect transfer/repositioning techniques such as medical instability, fractures, recent major surgery, chest pain, pressure ulcers, high risk for falls, or extremely dizzy. Be careful not to double count:

Ex: A fractured hip would count as “1” on ability to bear weight; do not add another 1 in section VI because they had hip surgery.

Ex: A blind patient would be scored “1” as needs minimal to moderate amount of help; do not add a “1” in section VI because they are blind.

 0 If there are no additional factors that complicate patient transfer

 1 Add 1 If additional factors that make the movement/transfer more difficult per primary nurse

Ambulatory Surgery/OR patients, patients who had IV conscious sedation, and patients with mental status changes: score frequently as this is considered a change in condition.

Appropriate Lift/Transfer Devices Needed – Check all that are appropriate

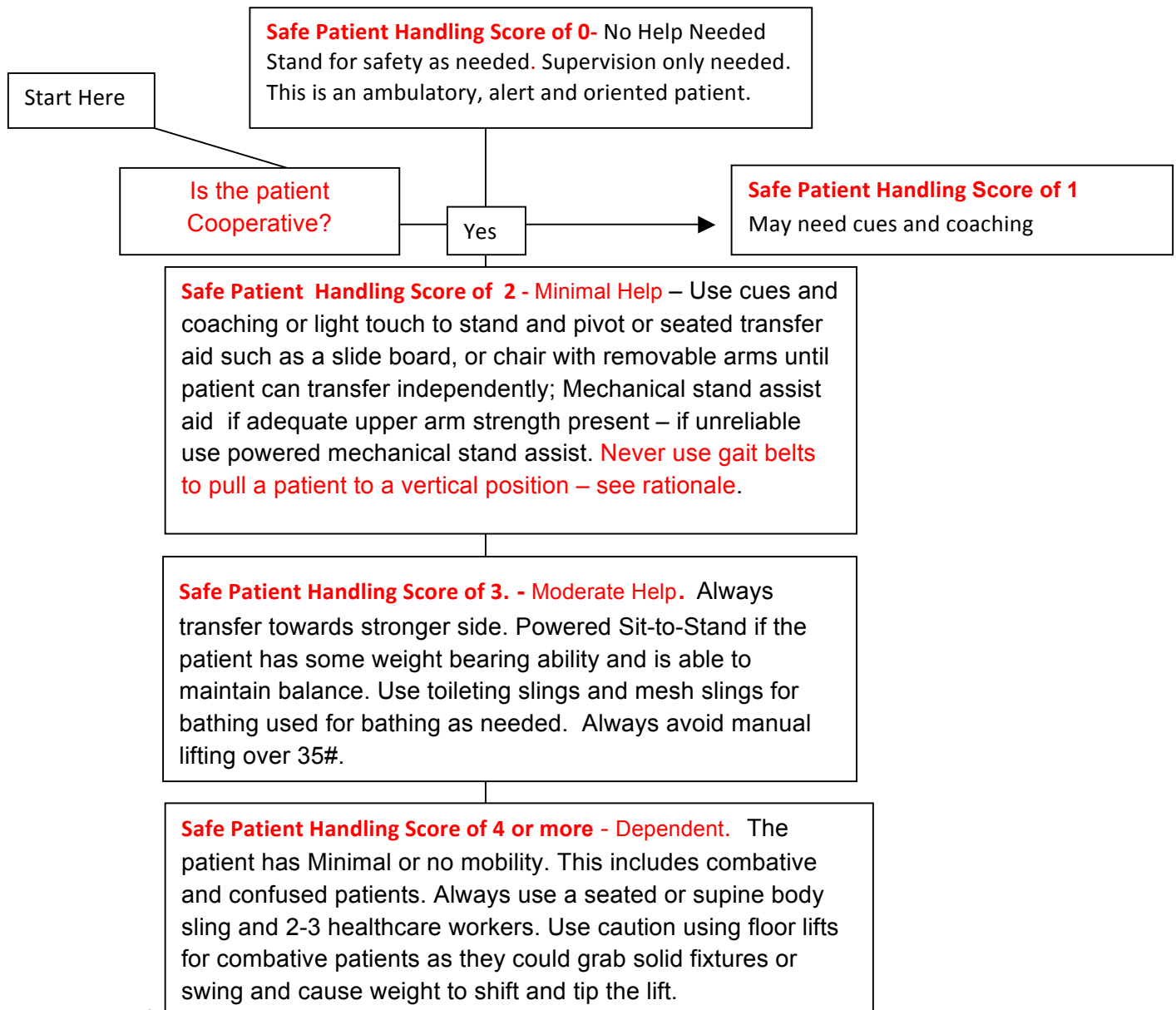
Ceiling Lift – full body sling _____ Ceiling lift to turn _____ Ceiling lift to hold extremity _____
Floor lifts _____ Manual Sit-to-Stand _____ Powered Sit-To-Stand _____ Other _____
Friction reducing material _____ Lateral Air Assist Device _____
Other Patient Handling Devices Needed: _____

Communicate the Safe Patient Handling Score in all reports to oncoming staff and other departments.

According to Young and colleagues (Waters, 2007) median lifting weights were described as light = 11pounds (5 kg.), moderate = 27 pounds (12.5 kg.), and heavy = 46.2 pounds (21 kg.). In addition, when a patient can lift part of their own weight it is not easy to determine lifting loads resulting in some facilities developing "no lift" policies. Despite almost 4 decades of research, the most commonly used transfer strategies used to safely handle patients are ineffective.⁵ A level “4” is a totally dependent patient, a level “3” rating means the patient needs extensive assistance, level 2 needs a little help (staff lift less than 35#), level 1 needs very little help but may need coaching and cueing, and level 0 is independent.²²

Transfer Algorithm Number 1 Bed to Chair, Chair to Toilet, Chair to Chair, or Car to Chair

Safe Patient Handling Score _____ If Score 4 or greater - Go directly to bottom of algorithm.



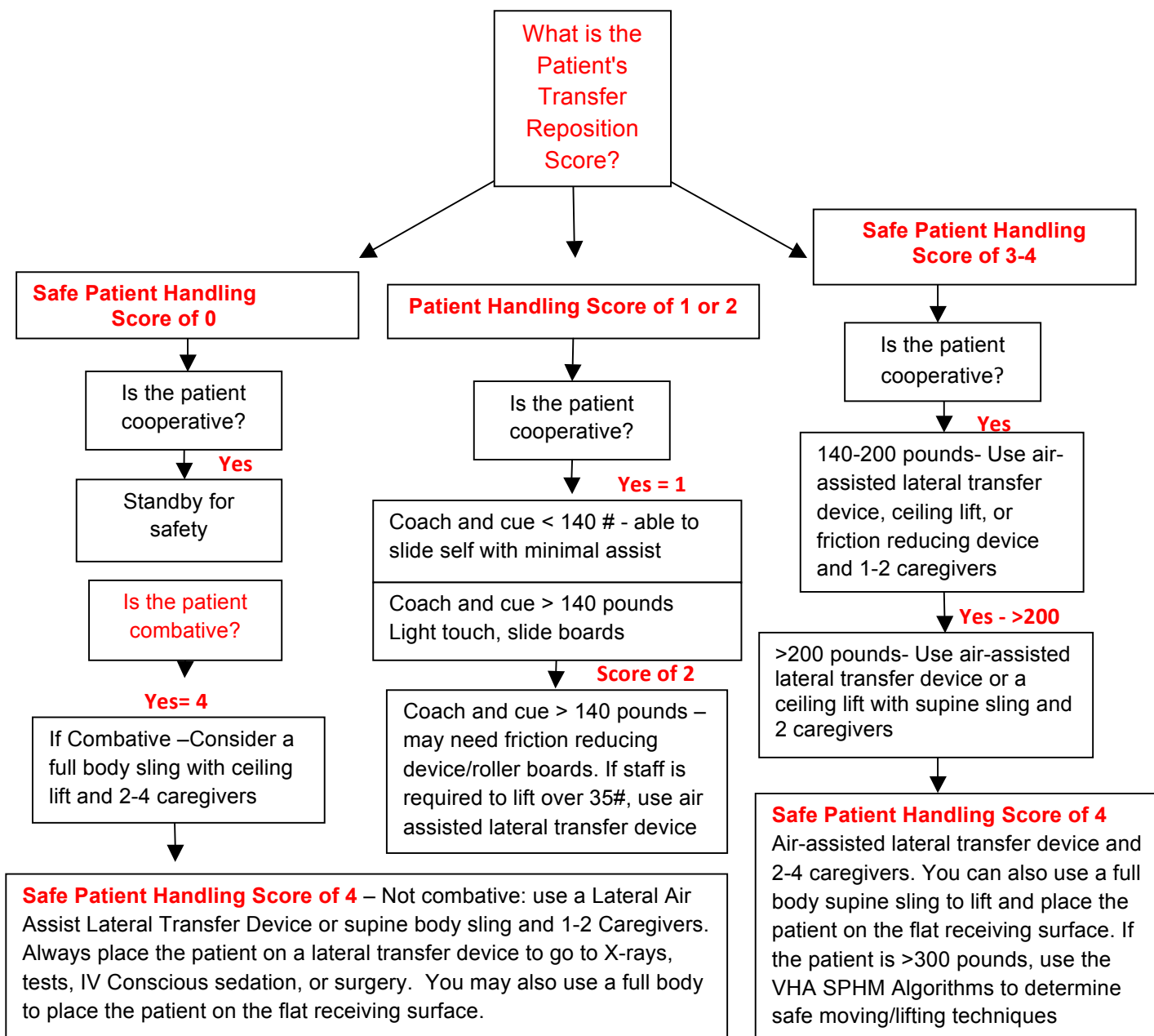
Combative patients can tip a floor based lift or assistive equipment!



When staff need to lift over 35 pounds = Consider the patient fully dependent on all algorithms!!

If the caregiver is required to lift more than 35# of patient weight, the patient should be considered fully dependent and assistive devices should be used for the transfer (1). Minimize all manual lifting and eliminate when feasible (2). Thirty-five years of research reveals body mechanics training alone fails to prevent job-related safe patient handling injuries (3). Do not use standing lifts if the patient is combative, unpredictable, or has cognitive defects (4). Research indicates one caregiver should not use a gait belt for vertical transfer of weight bearing patients (5). When transferring a patient to and from a car, use equipment designed for this type of transfer.²⁷ **Floor Lifts vs. ceiling lifts:** There is a significant reduction in injury, pain, discomfort when ceiling lifts are used to transfer or reposition patients. In addition, there is an increase in staff compliance to use ceiling lifts more than floor lifts.²⁵ Floor lifts are useful in specific patient handling tasks where ceiling lifts are impractical or unavailable. Push, pull, and rotation movements during safe patient handling is far less when using a ceiling lift than with a floor based lift.²⁶ It takes 50-75% less force to operate an overhead lift compared to a floor-based lift.²⁵

Safe Patient Handling Score _____ If Score 4 or greater - Go directly to bottom of algorithm.

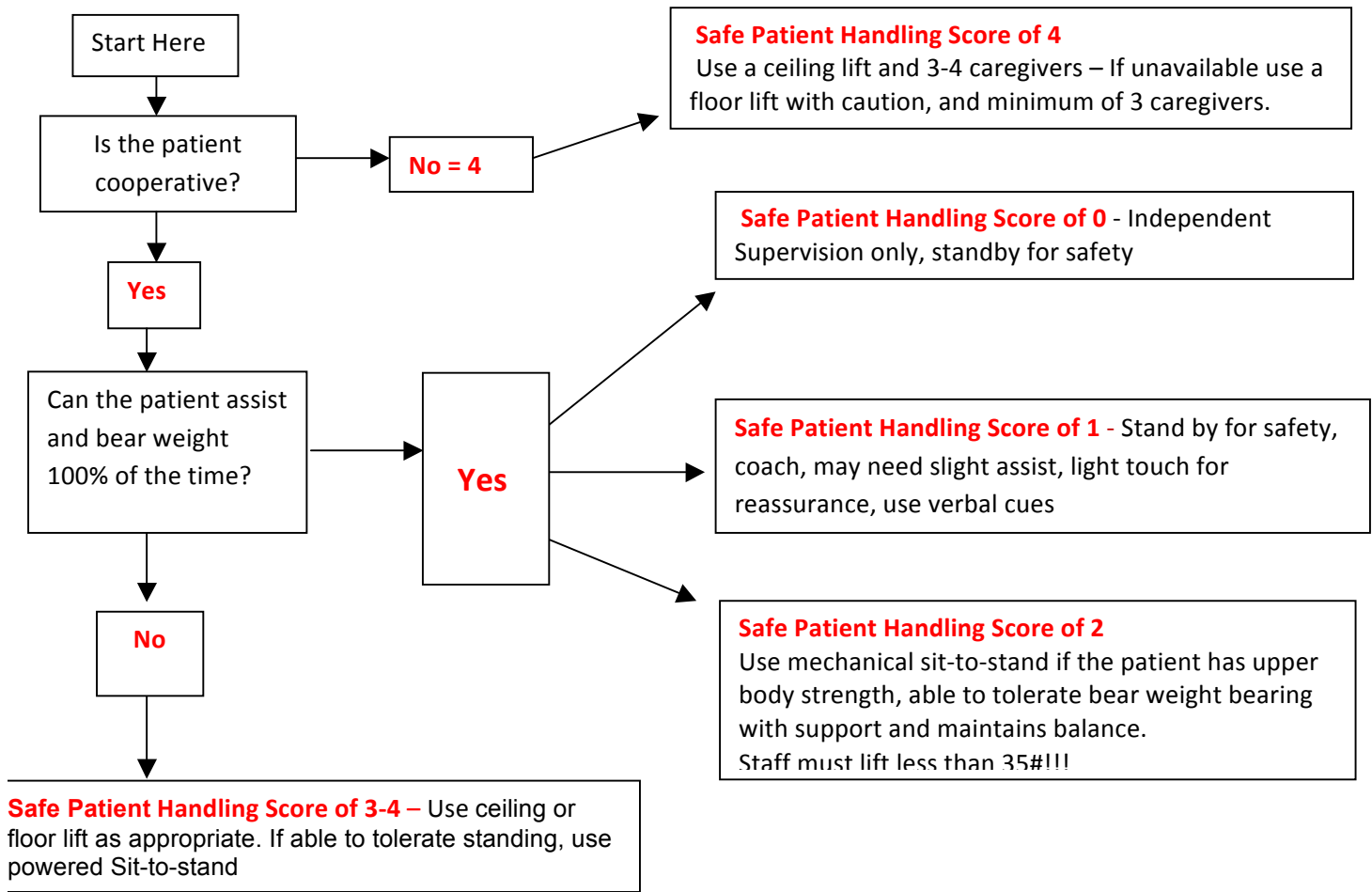


Patients who are uncooperative and combative always have a Safe Patient Handling score of 4 – and consider using a full body sling with a ceiling lift. This eliminates the need for the caregiver to lift, carry, or lower the patient. When mechanical lifts were used to lift patients staff injuries were reduced by 73.5% at a training center in the Commonwealth of Virginia.⁶ Injury occurs when there is a mismatch between physical capacity to lift and physical requirements of the job.⁷ When using an air-assisted lateral transfer device, move feet over first and then the head. Always transfer to a surface even or ½ inch below the starting surface.²⁷ Staff should try to avoid bending over the bed and stretching to reach the matt – one should slide the matt towards the other staff member to avoid awkward positioning and possible injury.^{4, 21} The number of caregivers is determined by patient weight and their ability to assist. If unable to assist and over 200# use 3 caregivers. Add one caregiver for every additional 100# of patient weight.⁴ When a patient lifting, moving, or repositioning task requires staff to lift over 35 pounds, the patient should be considered fully dependent and assistive devices should be used. When taking care of a patient with pressure ulcers, take care to avoid shear forces during transfers.²⁷



Pulling a patient up in bed is never a one person task!

Algorithm 3: Transfer To and From: Chair to Stretcher or Chair to Exam Table When the patient has a **Safe Patient Handling Score of 4 or more – always use maximum assistance**. If the patient weighs over 300#, consider using the VHA SPHM Algorithms. The weight of the patient and their ability to assist determines the number of staff needed to assist. Patients who are unable to assist and weigh over 200# require a minimum of 2 staff assist. ⁴



High/low exam tables and stretchers are ideal for ease of transfer. If a staff member has to lift over 35#, the patient should be considered totally dependent, and assistive devices should be used to make the transfer.¹ Manual lifting patients should be minimized in all cases and eliminated when possible.^{2,3,4,5, 22} **Gait belts are not used to pick a patient up or assist patients who are uncooperative, have had recent colostomy/ileostomy or other abdominal or back surgery, severe cardiac or respiratory conditions, abdominal aneurysm, or a phobia regarding belts.**²⁴ The number of caregivers is determined by patient weight and their ability to assist. If unable to assist and over 200# use 3 caregivers. Add one caregiver for every additional 100# of patient weight.⁴

In general: We do not recommend the use of gait belts for safe patient handling!

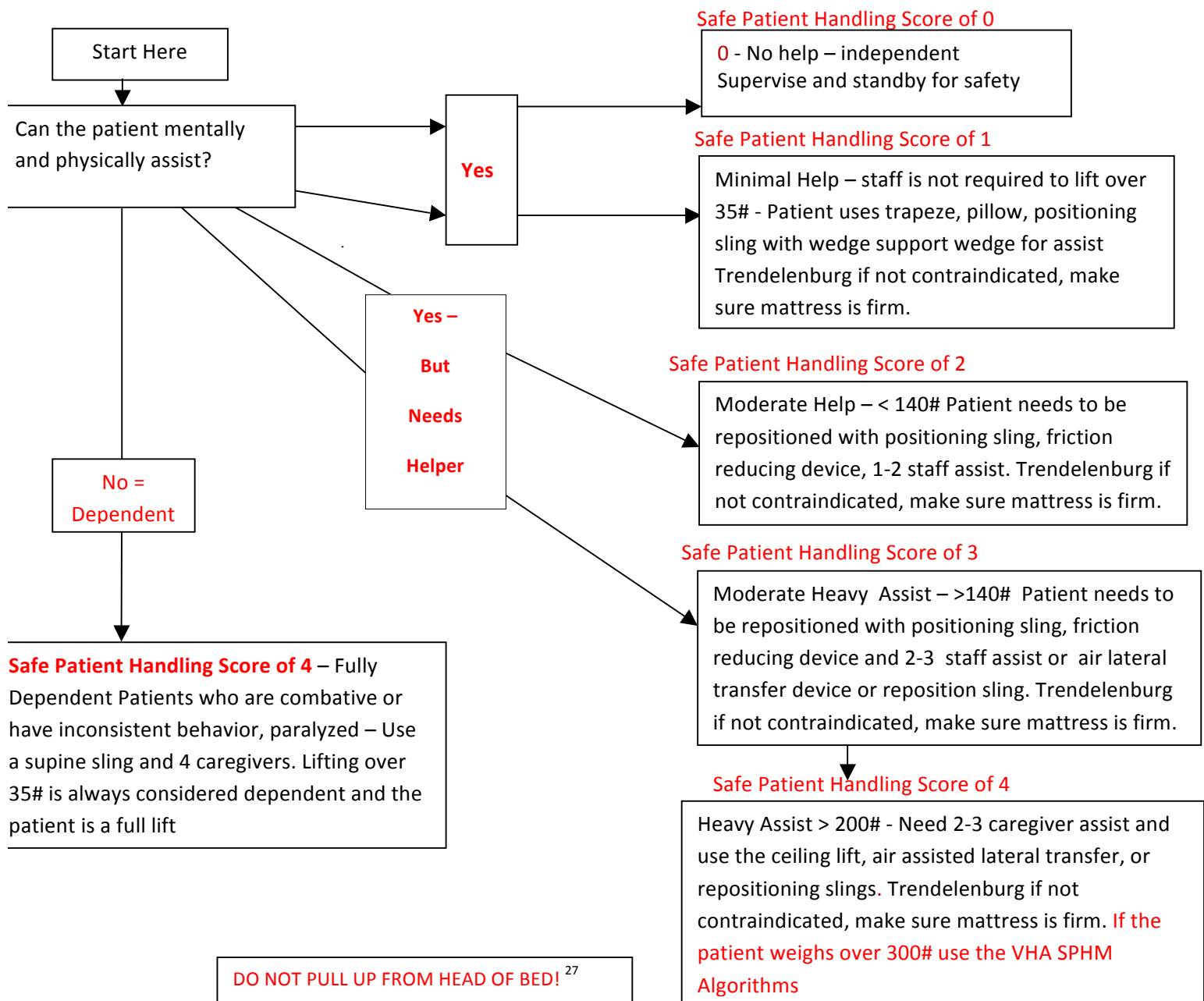
Patient Dignity Alert:

Please make patient dignity a top priority when using assistive equipment. Ceiling lifts should be used to lift the patient up and place them in a transport device for travel. Sometimes patients object to transport through the room to the bathroom on a ceiling lift, so please limit this activity to private rooms. Educate your patient and their family members on safe transport and seek approval to use ceiling lifts as a mode of transport to the bathroom.

Algorithm 4: Reposition up in Bed: Side to Side, Up in Bed

If the patient has a **Safe Patient Handling Score of 4** or more – always use maximum assistance.

If the patient weighs over 300# use the VHA SPHM Algorithms.

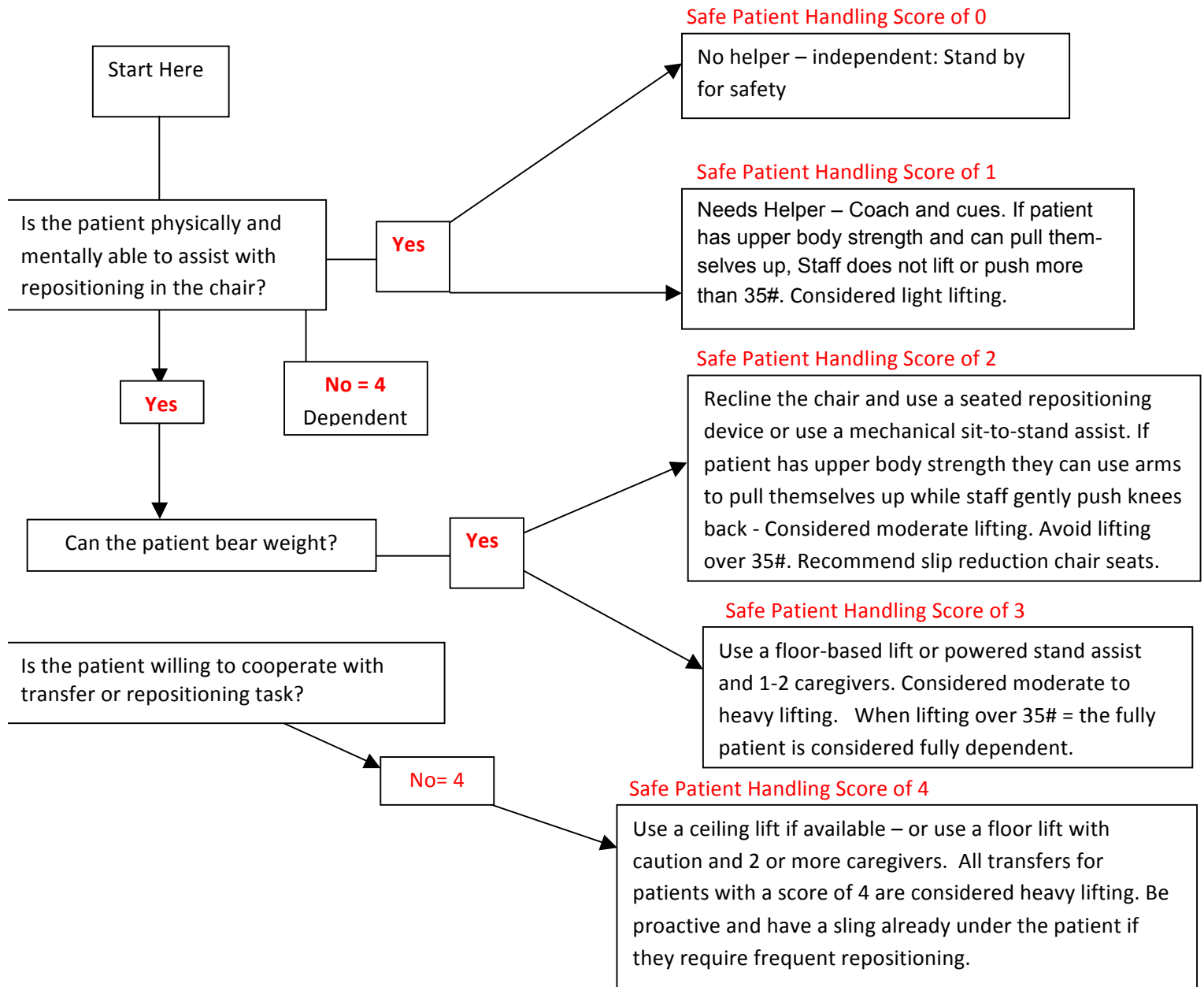


If the patient weighs over 200# or is uncooperative, 3 or more caregivers are needed for repositioning tasks.⁴ When the spine is subjected to unexpected, prolonged, or excessive stress it increases the likelihood of future staff injury from relatively minor stressors.⁸ The more mobility-dependent the patient is, the greater the risk for injury for those providing the care. Additionally, obese patients puts workers at risk for injuries during repositioning and nursing care activities that assist patients in meeting their daily activity needs, such as hygiene, bathing, ambulation, and dressing changes.¹³ When a patient lifting, moving, or repositioning task requires staff to lift over 35 pounds the patient should be fully dependent and assistive devices should be used.¹ A trapeze can be attached to the bed for patients who have upper body strength, control over extremities, and are able to cooperate and follow instructions.²² Trendelenburg position can be used to make repositioning easier if not contraindicated; make sure mattress is firm to ease resistance.

Algorithm 5: Reposition in Chair: Wheelchair and Dependency Chair

If the patient has a **Safe Patient Handling Score of 4 or more** – always use maximum assistance.

If the patient weighs over **300#** use the VHA SPHM Algorithms.



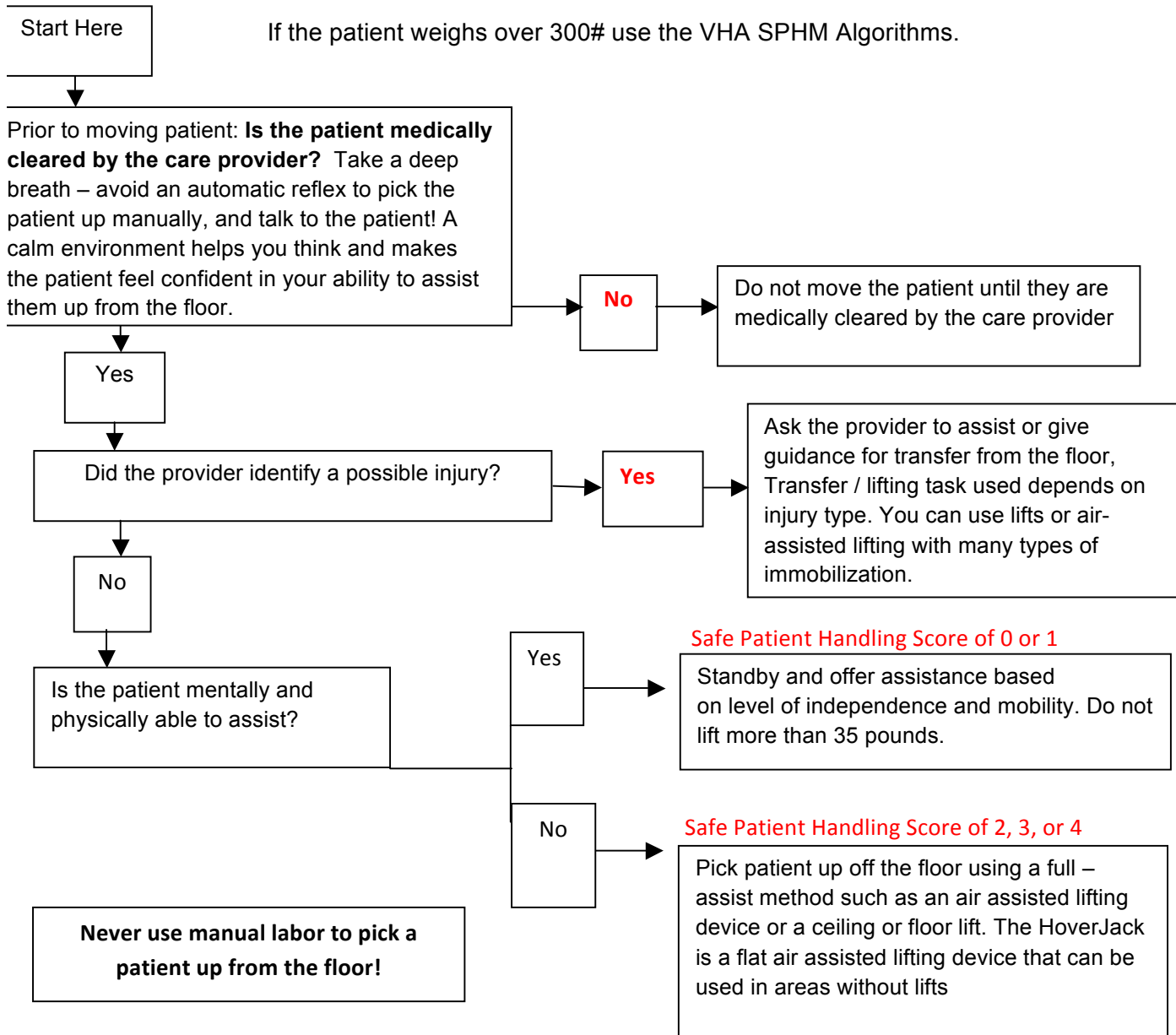
Use Powered Sit-To-Stand equipment only to help patients that are able to bear weight on at least one leg. Stand assist lifts should not be used for patients who are combative, unpredictable, cognitive defects, poor balance, or limited weight bearing capacity.⁶ Remember...when staff are required to lift over 35 pounds, assistive devices must be used. Use stand assist aids to assist patients out of cars and to stand if they have upper body strength and are able to bear weight once in a standing position.

Generally speaking: 0= no lifting, 1 = light lifting, 2= moderate lifting, 3= moderate to heavy lifting, and 4 = heavy lifting. According to Young and colleagues (Waters, 2007) median lifting weights were described as light -11pounds (5 kg.), moderate= 27 pounds (12.5 kg.) and heavy = 46.2 pounds (21 kg.). In addition, when a patient can lift part of their own weight it is not easy to determine lifting loads resulting in some facilities developing "no lift" policies.

Algorithm 6: Transfer a patient up from the floor

If the patient has a **Safe Patient Handling Score of 4** – always use maximum assistance

If the patient weighs over 300# use the VHA SPHM Algorithms.



Don't make a quick call without assessing the entire situation. Once a patient starts to fall, you cannot stop the momentum, and trying to intervene can cause injury to your back. In a best case scenario, you can gently guide them to the floor while protecting their head from hitting hard objects. The best intervention is to be proactive, assess fall risk with the Morse Fall Scale, and implement interventions to prevent falls.²³ Don't rush to help the patient up prior to assessing the situation – sometimes it takes a few minutes to determine the extent of injury.⁴ Sometimes staff make patient lifting and repositioning decisions based on tradition, personal experience, and "the way the unit does it" instead of scientific evidence.⁵

Avoid Reaction – Be Proactive to prevent this scenario whenever possible!

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Please acknowledge origin of the Scoring System Algorithms, and feel free to make them your own.

Gozzard, J. (March, 2010) Bay Pines VA Healthcare System Algorithms for Safe Patient Handling: Bay Pines VA PLUS Team. <http://vaww.visn08.r03.portal.va.gov/baypines/committees/SafePatient/Program%20Facility%20Coordinator/Forms/AllItems.aspx>